

27

Work Order ID 142703

Friday, March 11, 2016 12:51:06 PM

142703

Page 1

Item ID: K591-113 Accept *N900040100* Setup Start *NS1*

Revision ID: Stop *NS2*

Item Name: Short Step Instln

Start Date: 4/27/2016 Start Qty: 2.00 *2*

Required Date: 5/6/2016 Req'd Qty: 2.00 *2*

Reference: Cust Item ID: Customer:

Approvals: Process Plan: ML3 Date: MAR 14 2016 Tooling: _____ Date: _____ Run Start *NR1*

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
DSI9525	A								
104	Pick Kit	0.00							
104									
Packaging	Memo	0.00							
Packaging									
105	QC4- 100% Inspect kits for completeness	0.00							
105									
QC	Memo	0.00							
Quality Control									
110	Identify as per dwg & Stock Location: _____	0.00							
110									
Packaging	Memo <u>PPP145232</u>	0.00							
Packaging	***CHG005***								

2x DAS 6 9-89 MAY 16 2016

2x DAS 28 9-89 MAY 24 2016

DAS 27 9-89 MAY 16 2016

2x DAS 28 9-89 DAS 27 9-89

MAY 24 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐ _____					

Work Order ID 142703

Friday, March 11, 2016 12:51:06 PM

142703

Page 2

Item ID: K591-113

Accept

N900040100Setup Start ***NS1***

Revision ID:

Item Name: Short Step Instln

Stop ***NS2***Start Date: 4/27/2016 Start Qty: 2.00 ***2***

Cust Item ID:

Required Date: 5/6/2016 Req'd Qty: 2.00 ***2***

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run HoursTool ID Tool # Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

120

QC21- Final Inspection - Work Order Release

0.00

120

QC

Memo

0.00

Quality Control

16/5/25

16-5-24

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Picklist Print

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Page 1

Work Order ID: 142703

142703

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Instln

Start Date: 4/27/2016

Required Date: 5/6/2016

Start Qty: 2.00

Required Qty: 2.00

Comments:

IPP: C04.11.09ReformatKJ/JLM
as per revG DD 10.04.20 verified by:EC
586 10.06.18 DD verf:EC

IPP Rev:D
IPP Rev:E as per ECN10-

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D2171 *D2171* Clamp		Manufactured	No			104	Each	37.0000	2	4			
									**				
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST542			37					
					139964			37					
D2274 *D2274* Radius Block		Manufactured	No			104	Each	309.0000	4	8			
									**				
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					FG			12					
					86855			12					
					ST006			154					
					140177			154					
					ST012a			143					
					141052			143					
D2182B *D2182B*03.5 Rubber Cushion - Black (\$Per Foot)		Manufactured	No			104	f	527.6093	0.5833	1.1666			
									**				
					<u>Location</u>			<u>Loc Qty</u>		<u>Loc Code</u>			
					ST411			527.6093					
					130427			177.6093					
					135093			350					

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

2x

DAS
28
9-89

MAY 16 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

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Page 2

Work Order ID: 142703

142703

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Instln

Start Date: 4/27/2016

Required Date: 5/6/2016

Start Qty: 2.00

Required Qty: 2.00

D2362-3

Manufactured No

104

Each

10.0000

1

2

D2362-3

Step Support Bracket

**

DAS
28
9-89

Location

Loc Qty

Loc Code

ST537

10

140967

10

D3595-200-300

Manufactured No

104

Each

17.0000

1

2

D3595-200-300

Rubber Cushion 2.00" wide x 3.00" Long

**

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

5

84209

5

ST416

12

137489

2

142188

10

AN3-37A

Purchased No

104

Each

85.0000

2

4

AN3-37A

Bolt

**

DAS
28
9-89

Location

Loc Qty

Loc Code

FG

10

119086

10

ST347

75

m133694

25

m134180

50

DAS
28
9-89

DAS
28
9-89

DAS
28
9-89

MAY 16 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Friday, March 11, 2016 12:51:09 PM

Page 3

Work Order ID: 142703

142703

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Instln

Start Date: 4/27/2016

Required Date: 5/6/2016

Start Qty: 2.00

Required Qty: 2.00

AN4-21A Purchased No

104 Each 152.0000 4 8

AN4-21A

Bolt

Location	Loc Qty	Loc Code
over003	100	
m133640	50	
m133694	50	
ST3242	44	
m133640	44	
ST342	8	
m132716	8	

DAS
28
9-89

DAS
27
69-89
9-89

AN4-22A Purchased No

104 Each 144.0000 1 2

AN4-22A

Bolt

Location	Loc Qty	Loc Code
GA	50	
116419	50	
ST342	94	
123348	94	

DAS
28
9-89

DAS
6
9-89
27
9-89

NAS1149D0363J Purchased No

104 Each 1,900.000 4 8

NAS1149D0363.J

Washer

Location	Loc Qty	Loc Code
GA	64	
m130799	64	
ST263	1836	
m134055	836	
m134370	1000	

DAS
28
9-89

DAS
6
9-89

DAS
27
9-89

134606

MAY 16 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval	
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : ☐							
Misidentified ☐	Past Due ☐								

Picklist Print

Friday, March 11, 2016 12:51:09 PM

Page 4

Work Order ID: 142703

142703

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Instln

Start Date: 4/27/2016

Required Date: 5/6/2016

Start Qty: 2.00

Required Qty: 2.00

NAS1149D0463J

Purchased

No

104

Each

3,623.000

6

12

NAS1149D0463J

WASHER

134634

DAS

27

9-89

DAS

6

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

237

M129390

41

M132035

196

ST263

2398

M134039

2398

ST269

988

M132317

100

M132677

888

MS21042L3

Purchased

No

104

Each

2,890.000

2

4

MS21042L3

Nut

MAY 16 2016

DAS

6

9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

FP001

163

m133790

163

GA

68

m133790

68

OVER007

2000

m134360

2000

ST304

659

m134039

659

Friday, March 11, 2016 12:51:09 PM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

Picklist Print

Friday, March 11, 2016 12:51:09 PM

Page 5

Work Order ID: 142703

142703

Parent Item: K591-113

K591-113

Parent Item Name: Short Step Instln

Start Date: 4/27/2016

Required Date: 5/6/2016

Start Qty: 2.00

Required Qty: 2.00

MS21042L4

Purchased

No

104

Each

1,791.000

5

10

MS21042L4

Locknut

134606

DAS

27

9-89

Location

Loc Qty

Loc Code

FP001

37

m133363

37

GA

447

m133769

447

ST303

1210

m134055

1210

ST305

97

m130922

97

DAS
28
9-89

MAY 16 2016

DAS

6

8-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-591 REV. 3
REF TCCA STC: SH92-6
REF FAA STC: SH967NE

PURPOSE:

TO PROVIDE AN OPTIONAL CUSHION KIT TO BE INSTALLED ON THE D350-591-111A/-113/-115/-117A/-119 Heli-Access-Step™ (THE D2856-400-720 ABRASION STRIP IS REPLACED WITH THE D3595-200-300 CUSHION).

CHANGE:

FOR D350-591-111A/-113/-115 @ CHG 005 (OR LATER), D350-591-117A @ CHG 003 (OR LATER) AND D350-591-119 @ CHG 004 (OR LATER), THE PARTS LIST OF INSTALLATION INSTRUCTIONS D350-591 AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-591 IS AMENDED AS FOLLOWS:

QTY -111A	QTY -113	QTY -115	QTY -117A	QTY -119	Part Number	Description
X					D350-591-111A	Heli-Access-Step™, Long Step – High Skid
	X				D350-591-113	Heli-Access-Step™, Short Step – High Skid
		X			D350-591-115	Heli-Access-Step™, Short Step – Low Skid
			X		D350-591-117A	Heli-Access-Step™, Pre-Flight Step
				X	D350-591-119	Heli-Access-Step™, Long Step – Low Skid
	1				D2310	STEP ASSEMBLY (HIGH-SHORT)
1					D2311	STEP ASSEMBLY (HIGH-LONG)
		1			D2354	STEP ASSEMBLY (LOW-SHORT)
				1	D2355	STEP ASSEMBLY (LOW-LONG)
4	2	2	2	2	D2171	CLAMP
4	2	2	2	2	D2182B035	CUSHION
8	4	4	4	4	D2274	RADIUS BLOCK
			1		D2362-041	SUPPORT BRACKET
2	1			1	D2362-3	SUPPORT BRACKET
		1			D2362-5	SUPPORT BRACKET
2	1	1	1	1	D3595-200-300	CUSHION (NEW)
2	2	2		2	AN3-37A	BOLT
		4			AN4-20A	BOLT (REPLACED, WAS AN4-16A)
8	4			4	AN4-21A	BOLT (REPLACED, WAS AN4-20A)
1	1	1	4	1	AN4-22A	BOLT
4	4	4		4	NAS1149D0363J	WASHER (OR AN960JD10)
10	6	2	4	6	NAS1149D0463J	WASHER (OR AN960JD416)
		4			NAS1149D0416J	WASHER (OR AN960JD416L)
2	2	2		2	MS21042L3	NUT
9	5	5	4	5	MS21042L4	NUT

CANADA
DEPARTMENT OF TRANSPORT
AIRCRAFT CERTIFICATION
BRANCH
DAO # 01-O-01

APPROVED
BY: *[Signature]*
D. SHEPHERD (DE # 02)

DATE: 10.06.08
CERT. NO.: SH92-6
ISSUE NO.: 11

A	NEW ISSUE.	JPH	10.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	<i>90</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>1</i>		
CHECKED	<i>1</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 1 OF 4
APPROVED	<i>10</i>	TITLE	SCALE
DE APPR.	<i>11</i>	STEP CUSHION CHANGE	NTS
DATE	10.06.08	COPYRIGHT © 2010 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

1603-14
142.703 ML5
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UNCONTROLLED COPY
ENGINEERING
RETURN TO
SHIP COPY

THE DSI-9525-XXX KITS THAT ARE AVAILABLE FROM DART TO UPGRADE THE D350-591-111A/-113/-115 KITS @ CHG 004 (OR EARLIER), THE D350-591-117A KIT @ CHG 002 (OR EARLIER) AND THE D350-591-119 KIT @ CHG 003 (OR EARLIER) ARE AS FOLLOWS:

QTY -011	QTY -013	QTY -015	QTY -017	Part Number	Description
X				DSI-9525-011	STEP CUSHION KIT (FOR D350-591-111A)
	X			DSI-9525-013	STEP CUSHION KIT (FOR D350-591-113/-119)
		X		DSI-9525-015	STEP CUSHION KIT (FOR D350-591-115)
			X	DSI-9525-017	STEP CUSHION KIT (FOR D350-591-117A)
2	1	1	1	D3595-200-300	CUSHION
		4		AN4-20A	BOLT
8	4			AN4-21A	BOLT
			4	AN4-22A	BOLT
8	4	4	4	NAS1149D0463J	WASHER (OR AN960JD416)
8	4	4	4	MS21042L4	NUT

INSTRUCTIONS:

TO INSTALL THE D3595-200-300 CUSHION:

1. REMOVE THE STEP PER ICA-D350-591 SECTION 32.2
2. REMOVE THE D2856-400-720 ABRASION STRIP PER ICA-D350-591 SECTION 32.4
3. POSITION THE D3595-200-300 CUSHION AS INDICATED ON SHEET 3 OR 4 (AS APPLICABLE) OF THIS SERVICE INSTRUCTION.
4. REINSTALL THE STEP PER ICA-D350-591 SECTION 32.1 AS APPLICABLE USING THE NEW HARDWARE PROVIDED AS SHOWN ON SHEET 3 OR 4 (AS APPLICABLE) OF THIS SERVICE INSTRUCTION.

WEIGHT AND BALANCE:

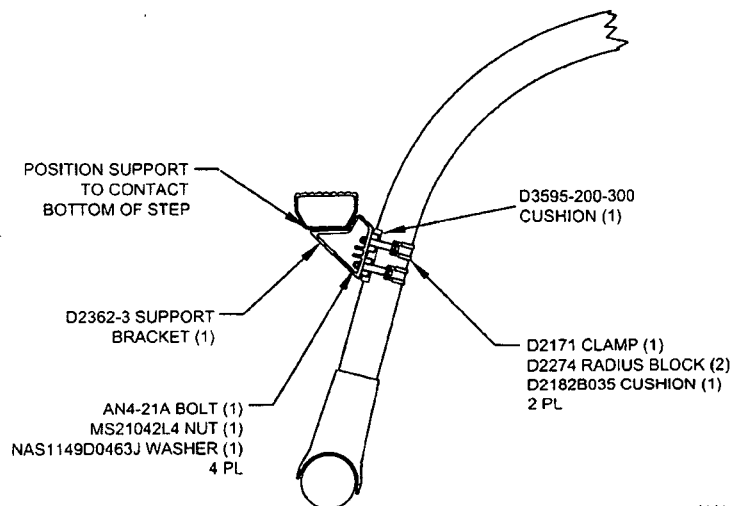
THERE IS A NEGLIGIBLE WEIGHT INCREASE WITH THIS MODIFICATION.

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DAO # 01-O-01

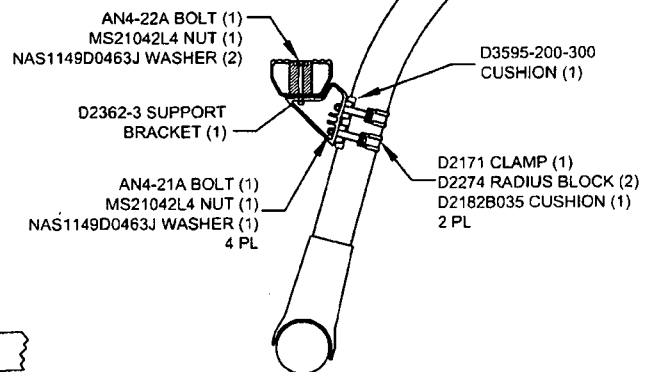
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BY: 
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CERT. NO.: SH92-6
ISSUE NO.: 11

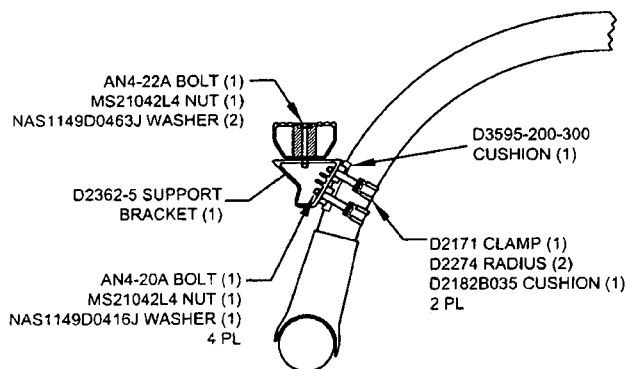
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DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 2 OF 4
APPROVED		TITLE	SCALE
DE APPR.		STEP CUSHION CHANGE	NTS
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SECTION C-C: CENTER SUPPORT
(D350-591-111A ONLY)
(NOT TO SCALE)



SECTION D-D: AFT ATTACHMENT
(D350-591-111A/-113/-119 ONLY)
(NOT TO SCALE)



SECTION E-E: AFT ATTACHMENT
(D350-591-115 ONLY)
(NOT TO SCALE)

FIGURE 32-9: Crosstube Attachment
REF ICA-D350-591

FIGURE 9: Crosstube Attachment
REF D350-591

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CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 3 OF 4
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	STEP CUSHION CHANGE	NTS
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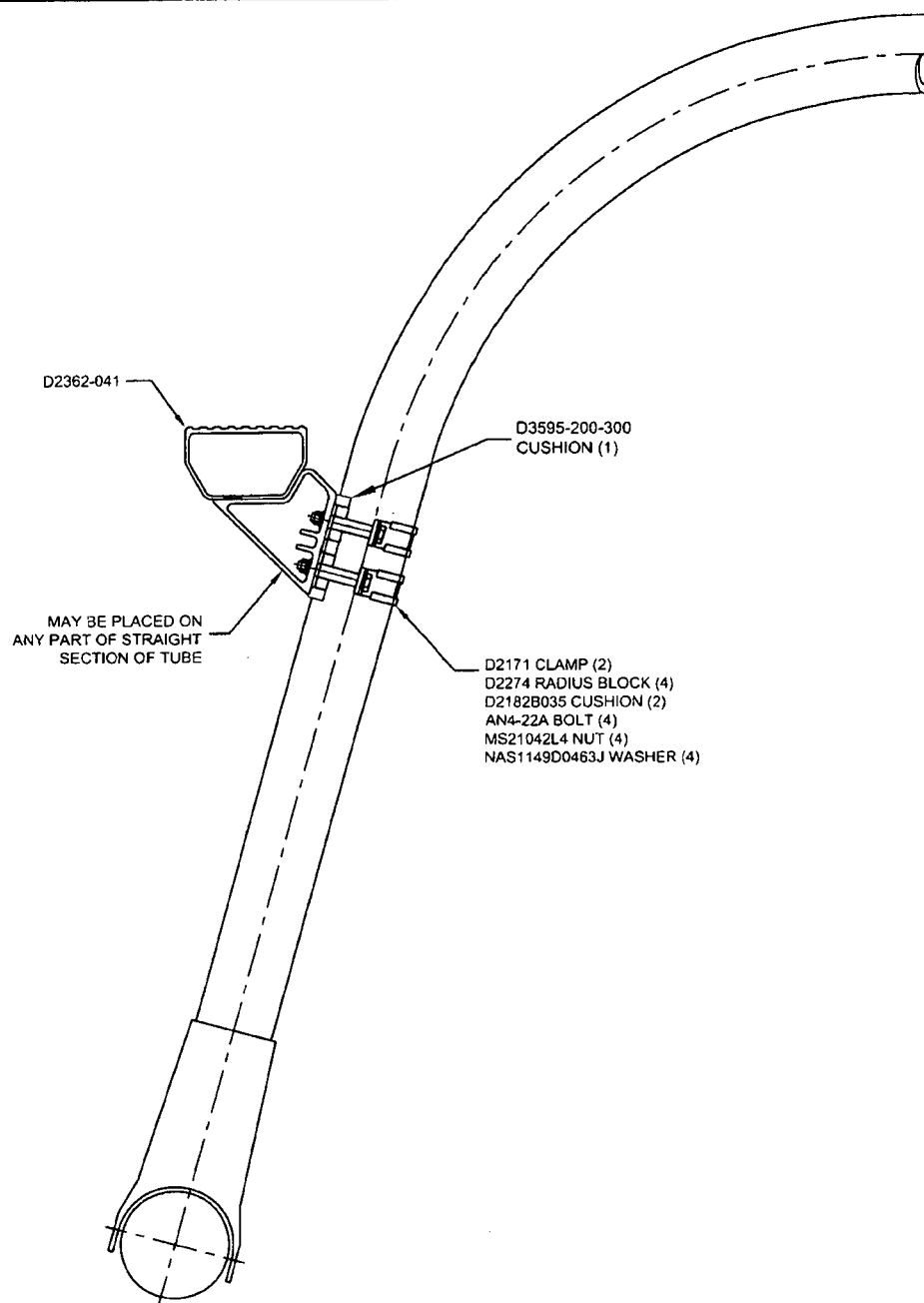


FIGURE 32-10: D350-591-117A *Heli-Access-Step*™, Pre-Flight Step
REF ICA-D350-591

FIGURE 10: D350-591-117A *Heli-Access-Step*™, Pre-Flight Step
REF D350-591

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
APPROVED	
BY: <i>[Signature]</i>	D. SHEPHERD (DE # 02)
DATE: 10.06.08	
CERT. NO.: SH92-6	
ISSUE NO.: 11	

DESIGN	<i>[Signature]</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	<i>[Signature]</i>		
CHECKED	<i>[Signature]</i>	DRAWING NO. DSI 9525	REV. A
MFG. APPR.	N/A	SHEET 4 OF 4	
APPROVED	<i>[Signature]</i>	TITLE	SCALE
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REFERENCE ONLY

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-591 REV. G
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-591 REV. 3
REF TCCA STC: SH92-6
REF FAA STC: SH967NE

DAS
28
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PURPOSE:

TO PROVIDE AN OPTIONAL CUSHION KIT TO BE INSTALLED ON THE D350-591-111A/-113/-115/-117A/-119 Heli-Access-Step™ (THE D2856-400-720 ABRASION STRIP IS REPLACED WITH THE D3595-200-300 CUSHION).

CHANGE:

FOR D350-591-111A/-113/-115 @ CHG 005 (OR LATER), D350-591-117A @ CHG 003 (OR LATER) AND D350-591-119 @ CHG 004 (OR LATER), THE PARTS LIST OF INSTALLATION INSTRUCTIONS D350-591 AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-591 IS AMENDED AS FOLLOWS:

QTY -111A	QTY -113	QTY -115	QTY -117A	QTY -119	Part Number	Description
X					D350-591-111A	Heli-Access-Step™, Long Step – High Skid
	X				D350-591-113	Heli-Access-Step™, Short Step – High Skid
		X			D350-591-115	Heli-Access-Step™, Short Step – Low Skid
			X		D350-591-117A	Heli-Access-Step™, Pre-Flight Step
				X	D350-591-119	Heli-Access-Step™, Long Step – Low Skid
	1				D2310	STEP ASSEMBLY (HIGH-SHORT)
1					D2311	STEP ASSEMBLY (HIGH-LONG)
		1			D2354	STEP ASSEMBLY (LOW-SHORT)
				1	D2355	STEP ASSEMBLY (LOW-LONG)
4	2	2	2	2	D2171	CLAMP
4	2	2	2	2	D2182B035	CUSHION
8	4	4	4	4	D2274	RADIUS BLOCK
			1		D2362-041	SUPPORT BRACKET
2	1			1	D2362-3	SUPPORT BRACKET
		1			D2362-5	SUPPORT BRACKET
2	1	1	1	1	D3595-200-300	CUSHION (NEW)
2	2	2		2	AN3-37A	BOLT
		4			AN4-20A	BOLT (REPLACED, WAS AN4-16A)
8	4			4	AN4-21A	BOLT (REPLACED, WAS AN4-20A)
1	1	1	4	1	AN4-22A	BOLT
4	4	4		4	NAS1149D0363J	WASHER (OR AN960JD10)
10	6	2	4	6	NAS1149D0463J	WASHER (OR AN960JD416)
		4			NAS1149D0416J	WASHER (OR AN960JD416L)
2	2	2		2	MS21042L3	NUT
9	5	5	4	5	MS21042L4	NUT

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A	NEW ISSUE.	JPH	10.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	9	DART AEROSPACE LTD	
DRAWN	1	HAWKESBURY, ONTARIO, CANADA	
CHECKED	1	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9525	SHEET 1 OF 4
APPROVED	10	TITLE	SCALE
DE APPR.	11	STEP CUSHION CHANGE	NTS
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